

Australian Bureau of Statistics

6523.0 - Household Income and Income Distribution, Australia, 2007-08

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Summary

Summary of findings

SUMMARY OF FINDINGS

INTRODUCTION

The economic wellbeing of individuals is largely determined by their command over economic resources. People's income and reserves of wealth provide access to many of the goods and services consumed in daily life. This publication provides indicators of the level and distribution of after tax (disposable) household income, after adjusting for household size and composition.

The estimates of disposable income in this publication are derived by deducting estimates of income tax liability, the Medicare levy and Medicare levy surcharge from the gross income data collected in the Survey of Income and Housing (SIH). Gross income is defined as receipts available for, or intended to support, current consumption, and are collected in respect to income from employment income (including non-cash benefits, bonuses, termination payments and irregular overtime), profit/loss from own unincorporated business, investment income (including interest, rent and dividends), lump sum workers' compensation receipts, private transfers (including superannuation, child support), other transfers from other households and cash transfers from government pensions and allowances. Some limits have been placed on items included as income, where the magnitude of the individual amounts received exceed that likely to be used to support current consumption e.g. termination payments, workers compensation payments.

While income is usually received by individuals, it is normally shared between partners in a couple relationship and with dependent children. To a lesser degree, there may be sharing with other members of the household. Even when there is no transfer of income between members of a household, nor provision of free or cheap accommodation, members are still likely to benefit from the economies of scale that arise from the sharing of dwellings. The income measures shown in this publication therefore relate to household income.

Larger households normally require a greater level of income to maintain the same material standard of living as smaller households, and the needs of adults are normally greater than the needs of children. The income estimates are therefore adjusted by equivalence factors to standardise the income estimates with respect to household size and composition, while taking into account the economies of scale that arise from the sharing of dwellings. The equivalised disposable income estimate for any household in this publication is expressed as the amount of disposable cash income that a single person household would require to maintain the same standard of living as the household in question, regardless of the size or composition of the latter.

Appendix 3 provides a more detailed explanation of equivalised disposable household income. It shows the differences in income measures when calculated from data at different stages in progression from gross household income, through disposable household income, to person weighted equivalised disposable household income.

The ABS has revised its standards for household income statistics following the adoption of new international standards in 2004 and review of aspects of the collection and dissemination of income data. The 2007-08 income estimates from the Survey of Income and Housing (SIH) presented in this publication apply the new income standards. Appendix 4 outlines the nature and impact of the changes on the income data included in this publication.

KEY RESULTS

Some of the key income results from the 2007-08 SIH are:

- for households with middle and high income levels in 2007-08, wages and salaries were the principal source of income, while for low income households government pensions and allowances were the principal income source
- middle income households contained more people on average than both low and high income households, but contained fewer employed persons than high income households (1.6 compared to 1.9) (Table 6)
- low income households (i.e those people with household income in the second and third deciles) had on

- average 0.7 employed persons (Table 6)
- people living in households where the reference person was aged 65 and over had the lowest mean incomes per week \$561 (Table 13) in 2007-08
- people aged 65 and over who were living alone were more likely than couples where the reference person was aged 65 and over to have government pensions and allowances as their principal source of income (76% compared to 65%) (Table 12)
- people aged 65 and over who were living alone were less likely than older couples to own their own home without a mortgage (69% compared to 86%) (Table 12)
- average equivalised disposable household incomes in the capital cities in Australia were 25% above those outside the capital cities (Tables 14 and 15)
- average equivalised disposable household incomes in the Australian Capital Territory (\$1,026), in the not very remote parts of the Northern Territory (\$877), Western Australia (\$860) and were above the national average (\$811) (Table 16)
- average equivalised disposable household incomes in Tasmania and South Australia were below the national average by 19% and 8% respectively (Table 16).

METHODOLOGICAL CHANGES AND INCOME MEASURES

Appendix 4 describes the most recent changes, made with this issue, to household income measures published by the ABS. These changes are the last in a succession of changes made over recent cycles to implement new international statistical standards for household income measurement and analysis.

The changes improve coverage of income by:

- incorporating non-cash benefits provided to employees, which adds \$43 per week to average gross household income in 2007-08 (\$18 and \$15 respectively to the 2005-06 and 2003-04 average weekly household incomes)
- incorporating termination payments and lump sum workers compensation payments, which adds \$5 per week to average gross household income in 2007-08
- incorporating irregular overtime payments, which adds \$9 per week in 2007-08
- measuring all bonuses rather than just the bonuses captured in previous surveys indistinguishably as part of
 the standard response to the question on regular wages and salaries, which contributes to higher average
 household income from this source in 2007-08 (up from \$19 per week in 2005-06 to \$32 per week in 2007-08)
 and
- incorporating a broader range of inter-household transfers, which contributes to higher average household income from this source in 2007-08 (up from \$4 per week in 2005-06 to \$15 per week in 2007-08.

Excluding the effects of the improved coverage in 2007-08 reduces the Gini coefficient from 0.331 to 0.319. The 0.319 measure for 2007-08 is up 5.6% on the 1994-95 measure of 0.302. While other methodological changes introduced with the 2003-04 and 2005-06 survey results have contributed to this difference, the residual movement (after methodological changes) in this summary indicator is very likely to be statistically significant. Some other indicators of income distribution show a similar pattern. As the table below shows, the income share going to first four income quintiles fell, while the share for the fifth quintile rose. While one of the three ratios of the higher percentile income levels to the lower percentiles rose significantly (the P90/P10 ratio was up by about 9%) the other two fell slightly, and there was little change in the P20/P50 ratio.

A major contributor to some of the changes in the income distribution measures in 2007-08, when compared with 2005-06, was the strong rise in wage and salary incomes (up 28%). After adjusting for the change in scope of the measures, a 22% increase remains, and is associated with the numbers of employees rising 8% (while the number of households rose only 2%), and with rising average wages and salaries.

S1. Income inequality, 1994-95 and 2007-08

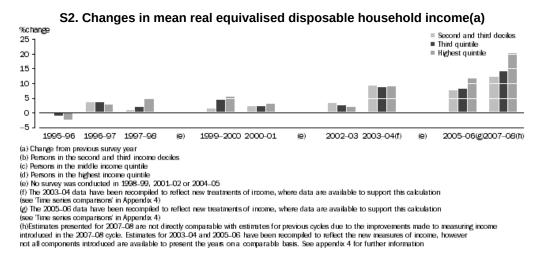
	1994-95 %	2007-08 (excluding new coverage adjustments) $\%$
Income share		
Lowest quintile	7.9	7.6
Second quintile	12.8	12.7
Third quintile	17.7	17.4
Fourth quintile	23.7	22.9
Highest quintile	37.8	39.4
Second and third deciles	10.8	10.4
Precentile ratios		
P90/P10	3.78	4.11
P80/P20	2.56	2.54
P80/P50	1.55	1.53
P20/P50	0.61	0.60

HOUSEHOLD INCOME

In 2007-08, average (mean) equivalised disposable household income for all persons living in private dwellings (i.e. the income that a single person household would require to maintain the same standard of living as the average person living in all private dwellings in Australia) was \$811 per week (Table 1). There were approximately 20.6 million people living in private dwellings (Table 2).

In real terms, average equivalised disposable household income in 2007-08 (\$811) was 16% higher than in 2005-06 (\$699) reflecting in part the break in series due to the improvements in measuring income introduced in this cycle (see Appendix 4 for more information). Adjusting for this break in series the net increase was 13% between 2005-06 and 2007-08 and 50% between 1994-95 and 2007-08.

For low income people (i.e those people with household income in the second and third deciles) average equivalised disposable household income grew by 12% (\$44 per week) from 2005-06 to 2007-08 or 10% when adjusting for the break in series. For middle income people the rise was 14% (11% when adjusted for the break in series) and 20% for high income people (16% when adjusted for the break in series).



Household characteristics

Households with different characteristics tend to have different income levels, as shown in table 6, and summarised in the following table. Wages and salaries were the principal source of income (PSI) for households with middle and high income levels in 2007-08, while government pensions and allowances dominated for low income households. However, low income households had the highest incidence of full ownership of their home, reflecting the high proportion of older people in the low income category.

S3. Household characteristics 2007-08, by income group

		Low income(a)	Middle income(b)	High income(c)
Mean equivalised disposable household income per week	\$	409	692	1 646
Has PSI of wages and salaries(d)	%	30.7	78.7	87.4
Has PSI of government pensions and allowances(d)	%	55.1	2.9	-
Owns home without a mortgage	%	45.8	30.3	26.9
Owns home with a mortgage	%	20.1	39.5	48.9
Rents from state/territory housing authority	%	6.5	*1.0	**0.2
Rents from private landlord	%	23.9	26.2	21.5
Average number of persons in the household	no.	2.6	2.9	2.5
Average number of employed persons in the household	no.	0.7	1.6	1.9

^{*} estimate has a relative standard error of 25% to 50% and should be used with caution

Middle income households contained more people on average than high income households (2.9 compared to 2.5) but contained fewer employed persons (1.6 compared to 1.9). In part, this reflects the different age profiles of the two

^{**} estimate has a relative standard error greater than 50% and is considered too unreliable for general use

⁻ nil or rounded to zero (including null cells)

⁽a) Persons in the second and third income deciles

⁽b) Persons in the middle income quintile

⁽c) Persons in the highest income quintile

⁽d) Principal source of income (PSI)

groups. Table 6 shows that middle income households had an average of 0.8 persons under the age of 18 and 0.2 aged 65 and over, compared to 0.4 and 0.1 respectively for high income households. Low income households had an average of 0.7 employed persons, and housed an average of 2.6 persons. Of these, 0.8 were under 18 years, 1.2 were 18 to 64 years, and 0.6 were aged 65 years and over (Table 6).

The characteristics of Australian households are changing over time. Table 3 shows that the average number of persons per household declined from 2.69 to 2.56, or about 5%, between 1994-95 and 2007-08. The proportion of couple only households increased from 23.7% to 26.5%, a higher increase than with any other family composition type. Each principal source of income retained its relative importance between 1994-95 and 2007-08, with 61.5% of households primarily dependent on wages and salaries in 2007-08. The proportion of households reliant on government pensions and allowances was 23.2% in 2007-08, down from 26.1% in 2005-06 and 28.5% in 1994-95. Over the last decade, home ownership remained relatively stable at around 70%.

Life cycle stages

Income levels across the population partly reflect the different life cycle stages that people have reached. A typical life cycle includes childhood, early adulthood, and the forming and maturing of families, as illustrated in table 12. Other family situations and household compositions are shown in table 11. The following table compares households in different life cycle stages.

S4. Income and household characteristics for selected life cycle groups, 2007-08

					, ,	• '	
	Number of households	Average number of persons	Average number of employed persons		lowances as PSI(a)	Mean quivalised disposable nousehold income per week	Proportion owning home without a mortgage
	'000	no.	no.	no.	%	\$	%
Lone person aged under 35 Couple only,	351.2	1.0	0.9	-	7.3	796	*3.5
reference person under 35 Couple with dependent children only	390.9	2.0	1.8	-	**1.3	1 155	*1.6
Eldest child under 5	430.0	3.4	1.5	1.4	*4.2	871	6.2
Eldest child 5 to 14	834.8	4.2	1.6	2.2	8.0	769	14.0
Eldest child 15 to 24	509.2	4.1	2.3	2.1	5.1	824	25.5
Couple with Dependent & non- dependent children only	289.2	4.8	3.0	1.6	**3.5	857	28.8
Non-dependent children only	443.1	3.3	2.3	-	8.1	989	52.7
Couple only, reference person 55 to 64	552.0	2.0	1.2	-	11.5	907	63.0
Couple only, reference person 65 and over	717.2	2.0	0.2	-	64.5	558	85.6
Lone person 65 and over	737.4	1.0	0.1	-	76.3	434	69.0
One parent, one family households with dependent children	497.7	3.0	0.9	1.8	44.8	520	8.1

^{*} estimate has a relative standard error of 25% to 50% and should be used with caution

Younger couples without children had the highest mean equivalised disposable household income of \$1,155 (Table 12) per week, with an average of 1.8 employed persons in the household. For couples with dependent children only, and with the eldest child being under five, mean equivalised disposable household income was \$871 per week (25% lower than for the young couples without children) (Table 12). This lower income principally reflects the lower average number of employed persons in these households (1.5) and the larger average number of persons in these households (3.4) over which incomes are shared.

Average incomes were higher for households with non-dependent children, reflecting higher proportions of employed

^{**} estimate has a relative standard error greater than 50% and is considered too unreliable for general use

⁻ nil or rounded to zero (including null cells)

⁽a) Principal source of income (PSI)

persons in these households, but were lower for households comprising older couples and lone persons, where the numbers of employed persons were substantially lower.

People living in households where the reference person was aged 65 and over had the lowest mean incomes, with lone persons' incomes at \$434 (Table 12) per week. This was lower than for older couple only households where the reference person was aged 65 and over and mean incomes were \$558 per week. Older lone persons were more likely than older couples to have government pensions and allowances as their principal source of income (76% compared to 65%), while older couples were more likely to fully own their home (86% compared to 69%) (Table 12).

Households comprising one parent with dependent children had a mean income of \$520 per week (Table 11), similar to that of older couples (\$558 per week) (Table 12), but only 8% fully owned their home and therefore a substantially greater proportion were making mortgage or rental payments from their income. Of these households, 45% had government pensions and allowances as their principal source of income. On average there were 0.9 employed persons in the household (Table 11).

States and territories

There were differences in the average levels of income between the states and territories (see Table 16). However, not all the differences were large enough to be regarded as statistically significant at the 95% confidence level (see Appendix 5).

Tasmania's mean equivalised disposable household weekly income was 19% below the national average and South Australia was 8% below. In table 16, the Australian Capital Territory, the Northern Territory and Western Australia are shown to have the highest mean incomes (27%, 8%, and 6% above the national average respectively). The high income levels reflect in part the younger age profile of the ACT and NT and the greater number of employed persons per household. The results for the Northern Territory also reflects the exclusion from the results of households in collection districts in the NT defined as very remote which, if included, would be likely to reduce the mean income in that territory. This potential for an overestimated mean income in the NT is based on the large relative size of the very remote population for that territory.

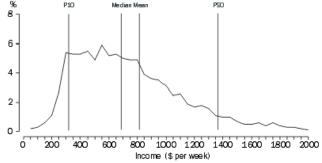
New South Wales, with the largest State population, recorded a mean equivalised disposable household weekly income only 1% above the national average (Table 16).

There are also differences between the equivalised disposable household incomes recorded in capital cities compared to those earned elsewhere in Australia. At the national level, mean incomes in the capital cities were 25% above those in the balance of state (Table 14), with all states (separate information is not available for the ACT and NT) recording capital city mean incomes above those in the balance of state. The largest differences recorded were for NSW and Queensland where the capital city incomes were 37% and 26% respectively, above the mean incomes across the rest of the state (Tables 14 and 15) .

INCOME DISTRIBUTION

While the mean equivalised disposable household income of all households in Australia in 2007-08 was \$811 per week, the median (i.e. the midpoint when all people are ranked in ascending order of income) was somewhat lower at \$692 (shown as P50 in Table 1). This difference reflects the typically asymmetric distribution of income where a relatively small number of people have relatively very high household incomes, and a large number of people have relatively lower household incomes, as illustrated in the following frequency distribution graph.

S5. DISTRIBUTION OF EQUIVALISED DISPOSABLE HOUSEHOLD INCOME, 2007-08



Note: Persons with an income between \$25 and \$2,025 are shown in \$50 larges on the graph.

Percentile ratios are one measure of the spread of incomes across the population. P90 (i.e. the income level dividing the bottom 90% of the population from the top 10%) and P10 (i.e. dividing the bottom 10% of the population from the rest) are shown on the above graph. In 2007-08, P90 was \$1360 per week and P10 was \$317 per week, giving a P90/P10 ratio of 4.30. Changes in these ratios can provide a picture of changing income distribution over time (Table

Another measure of income distribution is provided by the income shares going to groups of people at different points in the income distribution. The following table (S6) shows that, in 2007-08, 10.1% of total equivalised disposable household income went to people in the 'low income' group (i.e those people with household income in the second and third deciles) with 40.5% going to the 'high income' group (i.e. the 20% of the population in the highest income quintile) (Table 1).

The Gini coefficient is a single statistic that lies between 0 and 1 and is a summary indicator of the degree of inequality, with values closer to 0 representing a lesser degree of inequality, and values closer to 1 representing greater inequality. For 2007-08, the Gini coefficient was 0.331.

Some of the change in some of the income distribution measures between 2005-06 and 2007-08 reflects the most recent improvements made with the 2007-08 cycle. See Appendix 4 for further information and analysis of the impacts. The estimates presented in tables 1-3 for 2003-04 and 2005-06 have been revised to be as comparable as possible with 2007-08.

For more information on analysing income distribution please refer to Appendix 1.

S6. Selected income distribution indicators, Equivalised disposable household income

		1994-95	1995-96	1996-97	1997-98	1999-2000	2000-01	2002-03	2003-04	2005-0620	007-08 (a)
Percentage share of total income received by persons with	l										
Low income(b)	%	10.8	11.0	11.0	10.8	10.5	10.5	10.6	10.6	10.4	10.1
Middle income(c)	%	17.7	17.7	17.8	17.7	17.7	17.6	17.6	17.6	17.4	17.0
High income(d)	%	37.8	37.3	37.1	37.9	38.4	38.5	38.3	38.4	39.2	40.5
Ratio of incomes at top of selecter income percentiles											
P90/P10	ratio	3.78	3.74	3.66	3.77	3.89	3.97	4.00	3.87	4.05	4.30
P80/P20 P80/P50 P20/P50	ratio ratio ratio	2.56 1.55 0.61	2.58 1.57 0.61	2.54 1.56 0.61	2.56 1.56 0.61	2.64 1.57 0.59	2.63 1.56 0.59	2.63 1.57 0.60	2.55 1.53 0.60	2.58 1.55 0.60	2.63 1.56 0.59
Gini coefficient	no.	0.302	0.296	0.292	0.303	0.310	0.311	0.309	0.306	0.314	0.331

⁽a) Estimates presented for 2007-08 are not directly comparable with estimates for previous cycles due to the improvements made to measuring income introduced in the 2007-08 cycle. Estimates for 2003-04 and 2005-06 have been recompiled to reflect the new treatments of income, however not all new components introduced in 2007-08 are available for earlier cycles, thereby reducing the comparative basis. See appendix 4 for further information

CHILD CARE

In this publication, the child care use and cost estimates are based on data collected from child care questions being asked of households in the survey where children 12 years of age or less were resident. Table 7, Child care, provides key child care information by specific household characteristics. The full list of data items is available as a part of the Confidentialised Unit Record File (CURF), due to be released concurrently with this publication (see explanatory notes paragraph 11 for details).

In SIH 2007-08, respondents were asked to report child care usage in the previous month. On this basis, the proportion of children using care may be smaller than a measure based on a usual (or regular) attendance basis due to temporary absences, and larger than the proportion attending in a shorter reference period (such as a school term week). The largest difference will reflect the numbers of school children who will attend vacation care but no other formal care during a school term. For example, the number of children aged 0-12 years using formal care in the last month was estimated in the 2007-08 SIH at 836,000 (24% of children of this age) whereas the 2008 ABS Childhood Education and Care Survey (CEaCS) estimated 756,000 children (22% of this age group) usually in formal care, and a further 137,000 children attending formal care in the previous school holidays for whom no usual formal care arrangements were reported.

For informal care, the 2007-08 SIH the estimate was 1,787,000 children aged 0-12 years using care in the previous month compared with a CEaCS estimate 1,008,000 children with usual informal care arrangements. The differences were smaller for informal care arrangements that are likely to be dominated with usual care patterns e.g., for care

⁽b) Persons in the second and third income deciles

⁽c) Persons in the middle income quintile

⁽d) Persons in the top income quintile

provided by a parent living elsewhere the estimate from SIH was 207,000 children compared with CEaCS estimate of 162,000 children usually receiving informal care from a parent living elsewhere. However, where much of the care may be provided on an ad hoc basis, such as other relative care (other than grandparent), the SIH estimate was 513,000 children, compared with CEaCS estimate of 174,000.

The cost of care estimates in table 7 are shown, on a household basis, before the Child Care Benefit (or CCB which is shown separately) is deducted. For formal child care costs, the after CCB average weekly cost per child was \$68, compared with \$73 estimated from the CEaCS.

Of households with children aged 0-12 years, 67% (Table 7) used either formal or informal child care. Informal care was used by 58% of households with children of this age and 31% using formal care.

About this Release

Provides estimates of income received by households, classified by various characteristics of the households and their residents (eg income quintile, principal source of household income, family composition, tenure type, age, employment status). Improvements have been made to the measurements of income presented in the publication, in line with international statistical standards, to incorporate: non-cash benefits provided to employees, termination payments and lump sum workers compensation payments; and to improve the coverage of bonuses and irregular overtime payments and inter-household transfers. This publication also includes, for the first time, summary child care usage and cost information.

Explanatory Notes

Explanatory Notes

EXPLANATORY NOTES

INTRODUCTION

- 1 This publication presents a summary of the findings from the 2007-08 Survey of Income and Housing (SIH). The survey collected detailed information about the income and household characteristics of persons aged 15 years and over resident in private dwellings throughout Australia.
- **2** The Information Paper: Survey of Income and Housing, User Guide, Australia, 2007-08 (cat. no. 6553.0), expected to be released in August 2009, will assist users in evaluating and interpreting results from this survey.
- **3** The SIH was conducted continuously from 1994-95 to 1997-98, and then in 1999-2000, 2000-01, 2002-03, 2003-04, 2005-06 and 2007-08. The 2007-08 SIH collected information from a sample of approximately 9,345 households over the period August 2007 to June 2008. The SIH is conducted every two years.
- 4 Previous surveys of household income were conducted by the Australian Bureau of Statistics (ABS) in 1979, 1982, 1986 and 1990. These surveys were generally conducted over a two-month period, compared to a twelve-month period for the SIH. The SIH also included improvements to the survey weighting and estimation procedures, changes to the scope and coverage of household income and changes to interviewing methods.
- **5** The 2007-08 SIH was run as a stand alone survey (as it was in 2005-06), whereas the 2003-04 SIH was integrated with the Household Expenditure Survey (HES). The HES and SIH will be integrated each time the HES is run, next scheduled for 2009-10.

CHANGES IN THIS ISSUE

6 Changes in the contents of this issue are:

- improvements to the collection of income statistics. Refer to Appendix 4 for more information
- the use of population and household benchmarks based on the 2006 Census. For further information refer to the section on Weighting below (see paragraph 47)
- the use of additional information about tenure within the household to determine the selection of the household reference person, consistent with treatment prior to 2003-04.

7 The 2007-08 SIH content was largely similar to that used in the 2005-06 SIH with some changes in questions, definitions and methodology. Key changes to the collection include:

- data items on assets and liabilities were not collected for the 2007-08 SIH. They will be next collected in the 2009-10 cycle
- additional data collected on housing topics (available on the CURFs, see Appendix 6) and child care usage including costs and barriers to labour force participation due to child care related reasons
- the collection of income unit and person tenure data for the first time since SIH 2002-03.

Income measures

8 The ABS has revised its standards for household income statistics following the adoption of new international standards in 2004 and review of aspects of the collection and dissemination of income data. The 2007-08 income estimates in this publication reflect the changes in treatment of individual income components arising from the review.

- Employment income now includes all payments received by individuals as a result of their current or former involvement in paid employment. In addition to the regular and recurring cash receipts previously included, the new income measures also include non-cash benefits, bonuses, termination payments and payments for irregular overtime
- Interest paid on money borrowed to purchase shares or units in trusts is now netted off income earned from these sources when deriving income estimates
- Income earned as a silent partner in a partnership and some private trust income is now classified to investment income rather than unincorporated business income. The questions developed to effect this change also improved the reporting of income from these sources
- Lump sum workers' compensation receipts are now included
- A wider range of data on financial support received from family members resident outside the household is now included. In addition to regular payments previously collected, financial support has been extended to include other forms of financial support, including goods and services received which were purchased by others e.g. rent, education, food, clothing, car registration and utilities. Capital transfers, such as the purchase of property or cars, were excluded.
- **9** Some limits have been placed on the new inclusions, where the magnitude of the individual amounts received exceed that likely to be used to support current consumption e.g. termination payments, workers' compensation payments. Where data are available, the estimates for 2003-04 and 2005-06 shown in the time series tables in this publication also reflect the new treatments.
- **10** Appendix 4 provides more detail on the nature and impact of the changes on the income data included in this publication.

Inclusion of child care data

11 There were additional questions on use of child care, including preschool for a selected child, covering type, time used, costs and child care benefit received. In addition, there were new data items on barriers to labour force participation due to child care related reasons. Table 7 'Child care' presents some summary statistics for this topic. The Information Paper: Survey of Income and Housing, User Guide, Australia, 2007-08 (cat. no. 6553.0), expected to be released in August 2009 will contain the full list of available data items covered by this topic.

Inclusion of additional housing data

12 The SIH 2007-08 included additional housing topics on housing mobility, housing condition and dwelling characteristics, home purchase for first home buyers, household finances of owners with a mortgage, rental arrangements and the affairs of renters, and neighbourhood. Refer to Appendix 6, 'Additional Housing Topics', for more information on additional Housing data.

Other changes

13 Some changes have also been implemented within the derivation process to correct errors detected when calculating the disposable income for some households in receipt of tax offsets. Estimates for 2005-06 have been updated in this publication.

CONCEPTS AND DEFINITIONS

14 The concepts and definitions relating to statistics of income are described in the following section. Other definitions are included in the glossary.

Person and household data

- **15** A major determinant of economic wellbeing for most people is the level of income they and other family members in the same household receive.
- 16 While income is usually received by individuals, it is normally shared between partners in a couple relationship and with dependent children. To a lesser extent, it may be shared with other children, other relatives and possibly other people living in the same household, for example through the provision of free or cheap accommodation. This is particularly likely to be the case for children other than dependants and other relatives with low levels of income of their own. Even when there is no transfer of income between members of a household, nor provision of free or cheap accommodation, members are still likely to benefit from the economies of scale that arise from the sharing of dwellings.
- 17 Household characteristics, including household income, are therefore the main information required for analysing income distribution. However, it is the number of people who belong to households with particular characteristics, rather than the number of households with those characteristics, that is of primary interest in measuring income distribution and leads to the preference for the equal representation of those persons in such analysis. For example, if the person is used as the unit of analysis rather than the household, then the representation in the income distribution of each person in a household comprising four persons is the same as that for each person in a household comprising two persons. In contrast, if the household were to be used as the unit of analysis, each person in the four person household would only have half the representation of each person in the two person household.
- **18** In this publication, the income distribution measures are all calculated with respect to persons, including children. Such measures are sometimes known as person weighted estimates. They are described in more detail in Appendix 1. Nevertheless, as most of the relevant characteristics of persons relate to their household circumstances, Tables 6 to 16 primarily describe the households to which people belong.

Income

19 Household income consists of all current receipts, whether monetary or in kind, that are received by the household or by individual members of the household, and which are available for, or intended to support, current consumption.

20 Income includes receipts from:

- wages and salaries and other receipts from employment (whether from an employer or own incorporated enterprise), including income provided as part of salary sacrifice and/or salary package arrangements
- profit/loss from own unincorporated business (including partnerships)
- net investment income (interest, rent, dividends, royalties)
- government pensions and allowances
- private transfers (e.g. superannuation, workers' compensation, income from annuities, child support, and financial support received from family members not living in the same household).
- 21 Receipts of family tax benefit are treated as income, regardless of whether they are received fortnightly or as a lump sum. The aged persons' savings bonus and self-funded retirees' supplementary bonus, paid as part of the introduction of The New Tax System in 2000-01, are regarded as capital transfers as they were designed to help retired people maintain the value of their savings and investments following the introduction of the GST. However, the one-off payment to older Australians paid in 2000-01, 2005-06, and 2007-08, the one-off payment to families paid since 2003-04 and the one-off payments to carers paid since 2003-04 are included as income as they were primarily a supplement to existing income support payments. The maternity payment introduced in July 2004 is also included as income.

Gross income

22 Gross income is the sum of the income from all sources before income tax and the Medicare levy have been deducted. Prior to 2005-06, family tax benefit paid through the tax system or as a lump sum was excluded from gross income for practical reasons. In 2005-06 and 2007-08 these payments have been included in gross income.

Disposable income

23 Disposable income better represents the economic resources available to meet the needs of households. It is

derived by deducting estimates of personal income tax and the Medicare levy from gross income. Medicare levy surcharge was also calculated for the first time in 2007-08 and was deducted from gross income while calculating disposable income.

- **24** Income tax is estimated for all households using taxation criteria for 2007-08 and the income and other characteristics of household members reported in the survey.
- **25** Prior to 2005-06 the derivation of disposable income also included the addition of family tax benefit paid through the tax system or as a lump sum by Centrelink since for practical reasons it was not included in the gross income estimates.

Equivalised disposable income

- 26 Most analyses in this publication use equivalised disposable income rather than gross or disposable income since it enables comparison of the relative economic wellbeing of households of different size and composition. Equivalised disposable income is calculated by adjusting disposable income by the application of an equivalence scale. This adjustment reflects the requirement for a larger household to have a higher level of income to achieve the same standard of living as a smaller household. Where disposable income is negative, it is set to zero equivalised disposable income.
- 27 When household income is adjusted according to an equivalence scale, the equivalised income can be viewed as an indicator of the economic resources available to a standardised household. For a lone person household, it is equal to income received. For a household comprising more than one person, equivalised income is an indicator of the household income that would be required by a lone person household in order to enjoy the same level of economic wellbeing as the household in question.
- 28 For more information on equivalised income see Appendix 3.

Lowest income decile

- 29 While equivalised income generally provides a useful indicator of economic wellbeing, there are some circumstances which present particular difficulties. Some households report extremely low and even negative income in the survey, which places them well below the safety net of income support provided by social security pensions and allowances. Households may under report their incomes in the survey at all income levels, including low income households. However, households can correctly report low levels of income if they incur losses in their unincorporated business or have negative returns from their other investments.
- **30** Studies of income and expenditure reported in HES surveys have shown that such households in the bottom income decile and with negative gross incomes tend to have expenditure levels that are comparable to those of households with higher income levels (and slightly above the average expenditures recorded for the fifth income decile). This suggests that these households have access to economic resources such as wealth, or that the instance of low or negative income is temporary, perhaps reflecting business or investment start up. Other households in the lowest income decile in past surveys had average incomes at about the level of the single pension rate, were predominantly single person households, and their principal source of income was largely government pensions and allowances. However, on average, these households also had expenditures above the average of the households in the second income decile, which is not inconsistent with the use of assets to maintain a higher standard of living than implied by their incomes alone.
- **31** It can therefore be reasonably concluded that many of the households included in the lowest income decile are unlikely to be suffering extremely low levels of economic wellbeing. Income distribution analysis may lead to inappropriate conclusions if such households are used as the basis for assessing low levels of economic wellbeing. For this reason, tables showing statistics classified by income quintile include a supplementary category comprising the second and third income deciles, which can be used as an alternative to the lowest income quintile. (For an explanation of quintiles and deciles, see Appendix 1.)
- **32** With the 2003-04 HES, analysis of households in the lowest income decile was improved through direct observation of the expenditure and net worth of these households. An examination of these low income households was presented in Appendix 4 of **Household Wealth and Wealth Distribution**, **2003-04** (cat. no. 6554.0).

Weekly income

33 Income is collected using a number of different reporting periods, such as the whole financial year for own unincorporated business and investment income, and the usual payment for a period close to the time of interview for wages and salaries, other sources of private income and government pensions and allowances. The income reported is divided by the number of weeks in the reporting period. Estimates of weekly income in this publication do not therefore refer to a given week within the reference period of the survey.

Annual income

34 The tables in the main body of this publication refer to 'current' weekly income, that is, income being received at the time the data were collected from respondents. The survey also produces measures of 'annual' income that reflect total incomes for the previous financial year. Appendix 2 explains how current income differs from annual income, notes some of the advantages and disadvantages of the two types of measure and presents some 'annual' income estimates.

SURVEY METHODOLOGY

Scope

35 The survey collects information by personal interview from usual residents of private dwellings in urban and rural areas of Australia (excluding very remote areas), covering about 97% of the people living in Australia. Private dwellings are houses, flats, home units, caravans, garages, tents and other structures that were used as places of residence at the time of interview. Long-stay caravan parks are also included. These are distinct from non-private dwellings which include hotels, boarding schools, boarding houses and institutions. Residents of non-private dwellings are excluded.

36 Usual residents excludes:

- households which contain members of non-Australian defence forces stationed in Australia, and
- households which contain diplomatic personnel of overseas governments.

Data collection

37 Information for each household was collected using:

- a household level computer assisted interview questionnaire which collected information on household characteristics
- an individual level computer assisted interview questionnaire which collected information on income and other
 personal characteristics from each usual resident aged 15 years and over. It also collected information on child
 care costs, child care usage and barriers to labour force participation due to child care related reasons.

38 Sample copies of the above documents are included in the **Information Paper: Survey of Income and Housing, User Guide, Australia, 2007-08** (cat. no. 6553.0) to be released in August, 2009.

Sample design

39 The sample was designed to produce reliable estimates for broad aggregates for households resident in private dwellings aggregated for Australia, for each state and for the capital cities in each state and territory. More detailed estimates should be used with caution, especially for Tasmania, the Northern Territory and the Australian Capital Territory (see Appendix 7).

40 For the 2007-08 SIH, dwellings were selected through a stratified, multistage cluster design. Selections were distributed across a eleven month enumeration period. The SIH is normally conducted over a 12 month enumeration period so that the survey results would be representative of income patterns across the year. In 2007-08 the estimates were adjusted during weighting so that the shorter enumeration period in the first quarter was compensated in the final estimates. In the final quarter of enumeration, 10% of the selected dwellings were deselected from the sample. This reduced the overall number of dwellings selected to participate in the survey. This outcome may increase the standard error in the final quarter estimates and hence the standard error in the annualised estimates. The relative change in sample size across the enumeration quarters may also introduce some bias to the annualised estimates but this is expected to be much less than the standard error.

Non-responding households

41 Of the selected dwellings there were 11,126 in the scope of the survey. Of these, 1,781 did not respond at all to the questionnaire (including 46% that were not able to be contacted during the survey enumeration), or did not respond adequately. The remainder of these households included:

- households affected by death or illness of a household member
- households in which the significant person(s) in the household did not respond because they had language

- problems or refused to participate
- households in which the significant person(s) did not respond to key questions.

Partial response and imputation

- **42** Some other households did not supply all the required information but supplied sufficient information to be retained in the sample. Such partial response occurs when:
 - income or other data in a questionnaire are missing from one or more non-significant person's records because they are unable or unwilling to provide the data
 - all key questions are answered by the significant person(s) but other data are missing.
- **43** In these cases, the data provided are retained and the missing data are imputed by replacing each missing value with a value reported by another person (referred to as the donor).
- **44** Donor records are selected by finding fully responding persons with matching information on various characteristics (such as state, sex, age, labour force status and income) as the person with missing information. As far as possible, the imputed information is an appropriate proxy for the information that is missing. Depending on which values are to be imputed, donors are randomly chosen from the pool of individual records with complete information for the block of questions where the missing information occurs.
- **45** In the 2007-08 SIH, responses were imputed when not every person aged 15 or over residing in the household responded, but the significant persons provided answers to all key questions.

Final sample

46 The final sample on which estimates were based is composed of persons for which all necessary information is available. The information may have been wholly provided at the interview (fully-responding) or may have been completed through imputation for partially responding households. Of the selected dwellings, there were 11,126 in the scope of the survey, of which 9,345 (84.0%) were included as part of the final estimates. The final sample consists of those 9,345 households, comprising 18,326 persons aged 15 years old and over. The final sample includes 2,026 households which had at least one imputed value in income or child care expenses. For 52.4% of these households only a single value was missing, and most of these were for income from interest and investments or information relating to household loans.

SIH final sample: Number of households -	- 2007-08	3
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	Capital city		Balance of state)	Total		
	Households	Persons	Households	Persons	Households	Persons	
	no.	no.	no.	no.	no.	no.	
NSW	1 193	2 423	765	1 433	1 958	3 856	
Vic.	1 309	2 633	482	936	1 791	3 569	
Qld	749	1 559	828	1 588	1 577	3 147	
SA	1 063	2 016	292	544	1 355	2 560	
WA	965	1 896	269	513	1 234	2 409	
Tas.	283	538	387	712	670	1 250	
NT	268	538	64	128	332	666	
ACT	428	869	-	-	428	869	
Aust.	6 258	12 472	3 087	5 854	9 345	18 326	

⁻ nil or rounded to zero (including null cells)

Weighting

- 47 Weighting is the process of adjusting results from a sample survey to infer results for the total in scope population whether that be persons or households. To do this, a 'weight' is allocated to each sample unit e.g. a person or a household. The weight is a value which indicates how many population units are represented by the sample unit. The first step in calculating weights for each unit is to assign an initial weight, which is the inverse of the probability of being selected in the survey. For example, if the probability of a household being selected in the survey was 1 in 600, then the household would have an initial weight of 600 (that is, it represents 600 households).
- **48** An adjustment is then made to the initial weights to account for changes in the sample across the four quarters of survey enumeration; the sum of the weights after this initial adjustment of households in each quarter is equal.
- 49 The initial weights are then calibrated to align with independent estimates of the population of interest, referred to

as 'benchmarks'. Weights calibrated against population benchmarks ensure that the survey estimates conform to the independently estimated distribution of the population rather than to the distribution within the sample itself.

50 In the 2007-08 SIH, all persons in each household were assigned a weight. This differs from the 2005-06 SIH where children aged 0-14 years were not given separate weights, but household counts of the number of children were benchmarked to population totals.

51 The SIH survey was benchmarked to the in scope estimated resident population (ERP) and the estimated number of households in the population. The 2007-08 cycle has used population and household benchmarks based on the 2006 Census instead of the 2001 Population Census estimates used for the 2003-04 and 2005-06 SIH. The differences in the estimated population that occur due to this change are outlined in the following table.

	2001 Census	2006 Census
Population benchmark		
Australian Population Benchmark(a)	21 074 415	21 178 235
Persons in Non Private Dwellings Excluded	392 257	371 636
Persons in Very Remote Excluded	173 102	163 470
Total Population Exclusions	565 359	535 106
Final Population Benchmark	20 509 056	20 643 129
Household benchmark		
Australian Household Benchmark(a)	8 247 769	8 136 593
Households in Very Remote Excluded	61 690	61 348
Final Household Benchmark	8 186 079	8 075 244

(a) at 31 December 2007

52 The benchmarks used in the calibration of the final weights for the 2007-08 SIH were:

- number of persons -
 - by state or territory by age by sex
 - five year age groups up to 80+ years for the states
 - five year age groups up to 75+ years for the ACT
 - five year age groups up to 60+ years for the NT
 - by state or the ACT by labour force status ('Employed', 'Unemployed' and 'Not in the labour force')
 - by state by capital city/balance of state.
- numbers of households -
 - by household composition (number of adults (1, 2 or 3+) and whether or not the household contains children).
- **53** More detailed age groupings have been used where possible in 2007-08 SIH. Previously in the 2003-04 SIH, ten year age groups up to 65 years and over were used. In SIH 2005-06 five year age groups were used up to 75 years and over, except for NT where the age groups were 15-24, 25-44, 45 and over. The 2007-08 age groups have been refined further where possible, five year age groups up to 80 years or older in all states. The two territories have used five year age groups age up to 75 or older for the ACT and 60 or older for the NT. The expanded detail for age groups in SIH 2007-08 aims to improve estimates across those ages. The impact of this change on all other estimates not involving age is expected to be minimal.
- **54** The person and household benchmarks were based on preliminary estimates of numbers of persons and households in Australia in 2007-08 based on the 2006 Population Census. The benchmarks used include households and persons residing in occupied private dwellings only and therefore do not, and are not intended to, match estimates of the total Australian resident population published by the ABS.
- **55** Numbers of households are calibrated to benchmarks for total Australia with respect to household composition (based on the number of adults (1, 2 or 3) and whether or not the household contains children).

Estimation

- 56 Estimates produced from the survey are usually in the form of averages (e.g. average weekly income of couple households with dependent children), or counts (e.g. total number of households that own their dwelling or total number of persons living in households that own their own dwelling). For counts of households, the estimate was obtained by summing the weights for the responding households in the required group (e.g. those owning their own dwelling). For counts of persons, the household weights were multiplied by the number of persons in the household before summing. The SIH collects data on the number of people, including children, in each household but separate records with income and other detailed data were only collected for people 15 years and older. Therefore, counts of persons cannot be obtained by summing the weights of all persons.
- **57** Average income values are obtained in two different ways, depending on whether mean gross household income or mean equivalised disposable household income is being derived. Estimates of mean gross household income are

calculated on a household weighted basis. They are obtained by multiplying the gross income of each household by the weight of the household, summing across all households and then dividing by the estimated number of households. For example, the mean gross household income of couple households with dependent children is the weighted sum of the gross income of each such household divided by the estimated number of those households. Estimates of mean equivalised disposable household income are calculated on a person weighted basis. They are obtained by multiplying the equivalised disposable income of each household by the number of people in the household (including children) and by the weight of the household, summing across all households and then dividing by the estimated number of people in the population group. Appendix 3 illustrates the differences between mean gross household income calculated on a household weighted basis and mean equivalised disposable household income calculated on a person weighted basis.

RELIABILITY OF ESTIMATES

58 The estimates provided in this publication are subject to two types of error, non-sampling and sampling error.

Non-sampling error

- **59** Non-sampling error can occur in any collection, whether the estimates are derived from a sample or from a complete collection such as a census. Sources of non-sampling error include non-response, errors in reporting by respondents or recording of answers by interviewers and errors in coding and processing the data.
- **60** Non-sampling errors are difficult to quantify in any collection. However, every effort is made to reduce non-sampling error to a minimum by careful design and testing of the questionnaire, training of interviewers and data entry staff and extensive editing and quality control procedures at all stages of data processing.
- **61** One of the main sources of non-sampling error is non-response by persons selected in the survey. Non-response occurs when people cannot or will not cooperate or cannot be contacted. Non-response can affect the reliability of results and can introduce a bias. The magnitude of any bias depends upon the level of non-response and the extent of the difference between the characteristics of those people who responded to the survey and those who did not.
- 62 The following methods were adopted to reduce the level and impact of non-response:
 - face-to-face interviews with respondents
 - the use of interviewers who could speak languages other than English, where necessary
 - follow-up of respondents if there was initially no response
 - imputation of missing values
 - ensuring that the weighted data is representative of the population (in terms of demographic characteristics) by aligning the estimates with population benchmarks.

Sampling error

63 The estimates are based on a sample of possible observations and are subject to sampling variability. The estimates may therefore differ from the figures that would have been produced if information had been collected for all households. A measure of the sampling error for a given estimate is provided by the standard error, which may be expressed as a percentage of the estimate (relative standard error). Further information on sampling error is given in Appendix 7.

ACKNOWLEDGMENT

64 ABS publications draw extensively on information provided freely by individuals, businesses, governments and other organisations. Their continued cooperation is very much appreciated: without it, the wide range of statistics published by the ABS would not be available. Information received by the ABS is treated in strict confidence as required by the **Census and Statistics Act 1905**.

SPECIAL DATA SERVICES

65 The ABS offers specialist consultancy services to assist clients with more complex statistical information needs. Clients may wish to have the unit record data analysed according to their own needs, or require tailored tables incorporating data items and populations as requested by them. Tables and other analytical outputs can be made available electronically or in printed form. However, as the level of detail or disaggregation increases with detailed requests, the number of contributors to data cells decreases. This may result in some requested information not being able to be released due to confidentiality or sampling variability constraints. All specialist consultancy services attract a service charge, and clients will be provided with a quote before information is supplied. For further

information, contact ABS information consultants on 1300 135 070 from 9:00am to 4:30pm AEST Monday to Friday (International callers +61 2 9268 4909).

UNIT RECORD FILE

66 It is expected that a confidentialised unit record file (CURF) from the 2007-08 SIH will be released on CD-ROM in August 2009. It is also expected that a more detailed SIH CURF will be available through the ABS Remote Access Data Laboratory. All clients wishing to access the SIH 2007-08 basic and expanded CURF should refer to the ABS Website https://www.abs.gov.au (see Services, CURF Microdata) and read the CURF Microdata Entry Page, and other linked information, before downloading the appropriate Guide, Application and Undertaking forms and applying for access.

Australian universities

67 University clients should refer to the ABS web site <www.abs.gov.au> (see Services, Services for Universities). The SIH 2007-08 basic and expanded CURF can be accessed by universities participating in the ABS/Universities Australia CURF Agreement for research and teaching purposes.

Other clients

68 Other prospective clients should contact the Microdata Access Strategies Section of the ABS at <microdata.access@abs.gov.au> or on (02) 6252 7714.

RELATED PUBLICATIONS

69 Users may wish to refer to the following ABS products which relate to income: All can be downloaded free of charge from the ABS website.

Information Paper: Survey of Income and Housing, User Guide, Australia, 2007-08 (cat. no. 6553.0) is expected to be released in August 2009.

Survey of Income and Housing - Confidentialised Unit Record File, Technical Manual, 2007-08 (cat. no. 6541.0) is expected to be released in August 2009.

Housing Occupancy and Costs, Australia, 2007-08 (cat. no. 4130.0) is expected to be released in November 2009.

Housing Mobility and Conditions, Australia, 2007-08 (cat. no. 4130.0.55.002) is expected to be released in November 2009.

70 The earlier publications relating to the SIH are listed below. These publications can also be downloaded free of charge from the ABS website.

Experimental Estimates of Imputed Rent, Australia, 2003-04 and 2005-06 (cat. no. 6525.0) Estimates of Personal Income for Small Areas, 2001-02 to 2005-06 (cat. no. 6524.0.55.002) Government Benefits, Taxes and Household Income, Australia, 2003-04 (cat. no. 6537.0) Household Expenditure Survey, Australia: Summary of Results, 2003-04 (cat. no. 6530.0) Household Expenditure Survey, Detailed Expenditure Items, 2003-04 (cat. no. 6535.0.55.001) Housing Occupancy and Costs, Australia (cat. no. 4130.0.55.001)

71 The other ABS publications relevant to income statistics are listed below. These publications can also be downloaded free of charge from the ABS website.

Labour Force, Australia (cat. no. 6202.0) - issued monthly

Average Weekly Earnings, Australia (cat. no. 6302.0) - issued quarterly

Measuring Wellbeing: Frameworks for Australian Social Statistics, 2001 (cat. no. 4160.0)

Measures of Australia's Progress, 2006 (cat. no. 1370.0)

Information Paper: Experimental Estimates of Personal Income for Small Areas, Taxation and Income Support Data. 1995-96 to 2000-01 (cat. no. 6524.0)

Household Wealth and Wealth Distribution, Australia (cat. no. 6554.0)

Information paper: Changes to ABS Measures of Employee Remuneration, Australia, 2006 (cat. no. 6313.0)

72 Users may also wish to refer to the following non-ABS products which relate to income.

On the Australian Tax Office website (www.ato.gov.au) under > Corporate > About us > General

Accountability Information

Taxation Statistics 2004-05: A summary of income tax returns for the 2004-05 income year and other reported tax information for the 2005-06 financial year

Taxation Statistics 2005-06

Taxation Statistics 2006-07

Statistical Paper No. 3: Income support customers: A statistical overview 2004 (Department of Families, Community Services and Indigenous Affairs)

link: under FaHCSIA Internet > About FaHCSIA > Publications & Articles > Research Publications > Statistical Paper series http://www.fahcsia.gov.au/about/publicationsarticles/research/statistical/Pages/default.aspx

Household, Income and Labour Dynamics in Australia (HILDA) Survey, Annual Report 2006 (Department of Families, Housing, Community Services and Indigenous Affairs) link: www.melbourneinstitute.com/hilda/areport.html

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